

# STERILIZATION TEST 3/8 - 3/21

Pupae 5 days old when IY 3/8

Em 3/10

Sexed + Caged 3/11

Egged 3/20

## Emergence:

|          |     |
|----------|-----|
| 5,000 n  | 83% |
| 7,500 n  | 81% |
| 10,000 n | 82% |
| Control  | 85% |

CAGE 5,000 n

- #1 50 R♂ + 50 N♀
- 2 50 R♂ + 50 N♀
- 3 50 N♂ + 50 R♀
- 4 50 N♂ + 50 R♀

7,500 n

- 5 50 R♂ + 50 N♀
- 6 50 R♂ + 50 N♀
- 7 50 N♂ + 50 R♀
- 8 50 N♂ + 50 R♀

10,000 n

- 9 50 R♂ + 50 N♀
- 10 50 R♂ + 50 N♀
- 11 50 N♂ + 50 R♀
- 12 50 N♂ + 50 R♀

in this Test The pupae were exposed 4 in off the bottom of the exposure chamber







3/8-3/21 test cont'

## Longevity

Per Cent mortality AFTER  
6 days 10 days

| n-dose   | MALES | FEMALES | MALES | FEMALES |
|----------|-------|---------|-------|---------|
| 5,000 n  | 20    | 6       | 46    | 18      |
| 5,000 n  | 16    | 12      | 62    | 28      |
| 7,500 n  | 20    | 14      | 56    | 26      |
| 7,500 n  | 16    | 20      | 40    | 46      |
| 10,000 n | 22    | 18      | 50    | 68      |
| 10,000 n | 8     | 20      | 32    | 60      |
| None     | 22    | 0       | 26    | 12      |

## Egging

| n-dose   | MATING |         | NO.<br>OF ♀'s<br>Egged | NO.<br>OF<br>EGG MASSES | PER CENT<br>OF<br>EGGS THAT<br>Hatched |
|----------|--------|---------|------------------------|-------------------------|----------------------------------------|
|          | MALES  | FEMALES |                        |                         |                                        |
| 5,000 n  | R      | N       | 34                     | 34                      | 0                                      |
| "        | R      | N       | 34                     | 29                      | 0                                      |
| 5,000 n  | N      | R       | 41                     | 3 <sup>vs</sup> /em     | 0                                      |
| "        | N      | R       | 36                     | 2 <sup>vs</sup> /em     | 0                                      |
| 7,500 n  | R      | N       | 36                     | 36                      | 0                                      |
| "        | R      | N       | 31                     | 31                      | 0                                      |
| 7,500 n  | N      | R       | 37                     | 0                       | —                                      |
| "        | N      | R       | 27                     | 0                       | —                                      |
| 10,000 n | R      | N       | 29                     | 27                      | 0                                      |
| "        | R      | N       | 32                     | 32                      | 0                                      |
| 10,000 n | N      | R       | 16                     | 0                       | —                                      |
| "        | N      | R       | 20                     | 0                       | —                                      |
| None     | N      | N       | 44                     | 44                      | 100                                    |







# Shipments (Record to date 4/14)

## 1<sup>st</sup> Shipment 86% emergence (1yr pupae)

| Cage |                 | 5 day mor     | 11 day mor.   |
|------|-----------------|---------------|---------------|
| #1   | 100 R♂ + 100 N♀ | R♂ 31% N♀ 10% | R♂ 81% N♀ 42% |
| #2   | 100 N♂ + 100 R♀ | N♂ 33% R♀ 23% | N♂ 73% R♀ 84% |

Egged 11<sup>th</sup> day

58 N♀ egged 39 em No hatch

16 R♀ " NO em



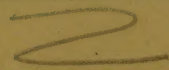
## 2<sup>nd</sup> Shipment 85% emergence (1yr pupae)

| Cage |                 | 6 day mor.    |
|------|-----------------|---------------|
| #1   | 100 R♂ + 100 N♀ | R♂ 35% N♀ 40% |
| #2   | 100 N♂ + 100 R♀ | N♂ 32% R♀ 21% |

Egged 6<sup>th</sup> day

58 N♀ egged 37 em No hatch

79 R♀ " NO em



## 3<sup>rd</sup> Shipment 89% emergence (1yr pupae)

| Cage |                 | 7 day mor. | 5 day mor | 11 day mor | 9 day mor. |
|------|-----------------|------------|-----------|------------|------------|
| #1   | 100 R♂ + 100 N♀ | R♂ 29%     | N♂ 31%    | R♂ 82%     | N♂ 53%     |
| #2   | 100 N♂ + 100 R♀ | R♀ 20%     | N♀ 9%     | R♀ 73%     | N♀ 33%     |

Egged 11<sup>th</sup> day for R Flies 9<sup>th</sup> day for N Flies

67 N♀ egged 63 em No hatch

27 R♀ " NO em







Record of Sterilization Test: 2/27 - 3/19

Pupated 2/27

IvY 3/4

Em 3/6

sexed + caged 3/7

Egged 3/19

Emergence:

|          |     |
|----------|-----|
| 5,000 n  | 92% |
| 7,500 n  | 87% |
| 10,000 n | 87% |
| Control  | 88% |

2

Cage 5,000 n

#1 100 R♂ + 100 N♀

#2 100 N♂ + 100 R♀

7,500 n

#3 100 R♂ + 100 N♀

#4 100 N♂ + 100 R♀

10,000 n

#5 100 R♂ + 100 N♀

#6 100 N♂ + 100 R♀

Control

#7 100 N♂ + 100 N♀







2/27 - 3/19 Test CONT'

Longevity:

Per Cent mortality AFTER:

|         | <u>7 days</u> |         | <u>10 days</u> |         | <u>13 days</u> |         |
|---------|---------------|---------|----------------|---------|----------------|---------|
| Fl-Dose | MALES         | FEMALES | MALES          | FEMALES | MALES          | FEMALES |
| 5,000   | 39°           | 55      | 66°            | 70      | 75             | 75      |
| 7,500   | 58            | 52      | 73             | 70      | 89             | 75      |
| 10,000  | 41            | 60      | 68             | 80      | 83             | 83      |
| None    | 7             | 20      | 29             | 41      | 44             | 53      |

Egging record:

|         | MATING |         | NO. OF<br>♀'s egged | NO. OF<br>egg masses | PER CENT OF<br>Eggs That<br>Hatched |
|---------|--------|---------|---------------------|----------------------|-------------------------------------|
| Fl dose | MALES  | FEMALES |                     |                      |                                     |
| 5,000   | R      | N       | 35                  | 25                   | 0                                   |
| 5,000   | N      | R       | 25                  | 12 5/8               | 0                                   |
| 7,500   | R      | N       | 52                  | 49                   | 0                                   |
| 7,500   | N      | R       | 25                  | 2 4/8                | 0                                   |
| 10,000  | R      | N       | 46                  | 46                   | 0                                   |
| 10,000  | N      | R       | 17                  | None                 | —                                   |
| None    | N      | N       | 47                  | 43                   | 20%                                 |

The low percentage of hatch was probably due to a too hot temperature during the egging process.

in this test The very bottom of the exposure cylinder was used







[n.d.]

3<sup>rd</sup> Shipment.

Emergence of irr. pupae 89%

Emerged 4/2

|                 | 7 day mor | 5 day mor |
|-----------------|-----------|-----------|
| 100 R♂ + 100 N♀ | R♂ 29%    | N♀ 9%     |
| 100 N♂ + 100 R♀ | R♀ 20%    | N♂ 31%    |

|                 | 11 day mor. | 9 day mor. |
|-----------------|-------------|------------|
| 100 R♂ + 100 N♀ | R♂ 82%      | N♀ 33%     |
| 100 N♂ + 100 R♀ | R♀ 73%      | N♂ 53%     |

Egged 11<sup>th</sup> day for R♀ and 9<sup>th</sup> day for N♀'s

|         |     |       |                 |
|---------|-----|-------|-----------------|
| R♂ + N♀ | 67♀ | 63 em | 2 em hatched L' |
| N♂ + R♀ | 27♀ | None  |                 |

L' The hatch recorded was probably due to normal ♀'s fertilized by normal ♂'s before they were sexed for the test. The fact that 27 R♀'s did not produce an egg indicates complete sterility. Since 2 complete egg masses hatched it indicates a completely normal ♂ did the fertilizing.

4<sup>th</sup> Shipment

Emergence 4/6-7

88% emergence (irr. pupae)

|               | 6 day mor |     |     |     | 9 day mor |     |     |     |
|---------------|-----------|-----|-----|-----|-----------|-----|-----|-----|
|               | R♂        | N♂  | R♀  | N♀  | R♂        | N♂  | R♀  | N♀  |
| 54 R♂ + 54 N♀ | 44%       |     |     | 40% | 70%       |     |     | 50% |
| 65 N♂ + 65 R♀ |           | 50% | 38% |     |           | 68% | 77% |     |

Egging 9<sup>th</sup> day

|         |     |       |             |
|---------|-----|-------|-------------|
| R♂ + N♀ | 27♀ | 23 em | no hatching |
| N♂ + R♀ | 15♀ | None  |             |



$$\begin{array}{r} 17 \\ 6 \overline{) 102} \\ \underline{12} \phantom{0} \\ 20 \phantom{0} \\ \underline{18} \phantom{0} \\ 20 \phantom{0} \\ \underline{18} \phantom{0} \\ 22 \phantom{0} \\ \underline{21} \phantom{0} \\ 1 \phantom{0} \end{array}$$



4/6 Shipment Emerged 4/9 79% emergence (irr pupae)

|                 | 7 day mor. |     |     |     | 11 day mor. |     |     |     |
|-----------------|------------|-----|-----|-----|-------------|-----|-----|-----|
|                 | R♂         | N♂  | R♀  | N♀  | R♂          | N♂  | R♀  | N♀  |
| 100 R♂ + 100 N♀ | 47%        |     |     | 25% | 73%         |     |     | 56% |
| 100 N♂ + 100 R♀ |            | 56% | 36% |     |             | 82% | 68% |     |

Egging 11 <sup>±</sup> day

|         |     |       |             |
|---------|-----|-------|-------------|
| R♂ + N♀ | 44♀ | 44 em | NO hatching |
| N♂ + R♀ | 32♀ | None  | —           |

4/10 Shipment Em 4/12 Emergence 90%+ (irr pupae)

|                 | 11 day mor |     |     |     |
|-----------------|------------|-----|-----|-----|
|                 | R♂         | N♂  | R♀  | N♀  |
| 100 R♂ + 100 N♀ | 92%        |     |     | 63% |
| 100 N♂ + 100 R♀ |            | 69% | 33% |     |

Egging

|         |     |       |          |
|---------|-----|-------|----------|
| R♂ + N♀ | 37♀ | 24 em | no hatch |
| N♂ + R♀ | 67♀ | None  | —        |



